U.S. Department of the Interior • U.S. Geological Survey

MINERAL INDUSTRY SURVEYS

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MOLYBDENUM IN DECEMBER 1996

Domestic production of molybdenum in concentrate increased 13% in December 1996 compared with that of theprevious month and was 8% more than in December 1995, according to the U.S. Geological Survey. Producer molybdenum stocks in concentrate, oxide, and other product forms were 8,930 metric tons at the beginning of 1996 and 7,650 metric tons at the end of December.

Included in this Mineral Industry Surveys are U.S. production, shipments, and stocks of molybdenum concentrates and materials, plus U.S. consumption by end use of molybdenum in December 1996. Also included are trade data for November 1996. During December, Platt's Metals Week U.S monthly

average price for molybdenum concentrate was \$4.960 per kilogram (\$2.250 per pound). The average price for dealer molybdenum oxide was \$9.535 per kilogram (\$4.325 per pound) and that for dealer ferromolybdenum was \$11.464 per kilogram (\$5.200 per pound).

For the week ending February 21, 1997, Platt's Metals Week U.S. average price for molybdenum concentrate was \$4.960 per kilogram (\$2.250 per pound). The average price for dealer molybdenum oxide was \$10.361 per kilogram (\$4.700 per pound) and that for ferromolybdenum was \$11.904 per kilogram (\$5.400 per pound).

$\begin{tabular}{ll} TABLE & 1 \\ U.S. SALIENT MOLYBDENUM CONCENTRATE STATISTICS & 1/ \\ \end{tabular}$

(Metric tons, contained molybdenum)

		1996				
Item	1995 p/	November	December	Year to date 2/		
Production	58,000	4,420 r/	5,000	55,900		
Shipments: 3/						
Domestic	13,700	1,280	1,340	16,000		
Export	18,600	1,120 r/	1,230	19,600		

p/ Preliminary. r/ Revised.

TABLE 2 U.S. REPORTED CONSUMPTION, BY END USES, AND CONSUMER STOCKS OF MOLYBDENUM MATERIALS IN DECEMBER 1996 $1\!/$

(Hundred kilograms, contained molybdenum)

End use	Molybdic oxides	Ferro molyb- denum 2/	Ammonium and sodium molybdate	Molyb- denum scrap	Other	Total
Steel:			<u>,</u>	•		
Carbon	411	W			W	411
Stainless and heat-resisting	1,940	93			W	2,030
Full alloy	2,010	1,120			W	3,120
High-strength low-alloy	400	266				666
Tool	859	41			W	900
Cast irons	17	458			W	475
Superalloys	1,020	156		219	389	1,780
Alloys:						
Welding materials (structural and hard-facing)		W			W	W
Other alloys 3/		W		5	W	5
Mill products made from metal power					W	W
Chemical and cereamic uses:						
Pigments			10			10
Catalysts	773		W		W	773
Other	10				W	10
Miscellaneous and unspecified		392	758		1,640	2,790
Total	7,440	2,520	768	224	2,030	13,000
Stocks, December 31, 1996	4,870	1,620	87	503	8,170	15,300

W Withheld to avoid disclosing company proprietary data; included in "Miscellaneous and unspecified."

 ${\bf TABLE~3}$ U.S. REPORTED PRODUCTION AND SHIPMENTS OF MOLYBDENUM PRODUCTS 1/

(Metric tons, contained molybdenum)

		1996		
Product	1995 p/	November	December	Year to date 2/
Gross production	46,000	3,240	3,910	45,800
Molybdenum product 3/				
used to make other products	23,100	2,340	1,950	23,700
Shipments	24,000	1,280	2,150	24,300

p/ Preliminary.

^{1/} Data are rounded to three significant digits.

^{2/} May include revisions to previous months' data.

^{3/} As reported by producers.

 $^{1/\,\}mbox{Data}$ are rounded to three significant digits; may not add to totals shown.

^{2/} Includes calcium molybdate.

^{3/} Includes magnetic and nonferrous alloys.

^{1/} Data are rounded to three significant digits.

^{2/} May include revisions to previous months' data.

^{3/} Includes molybdic oxides, metal powder, ammonium molybdate, sodium molybdate, and other.

TABLE 4 U. S. EXPORTS OF MOLYBDENUM ORE AND CONCENTRATE (Including roasted concentrate), BY COUNTRY 1/

(Hundred kilograms, contained molybdenum)

		1996				
Country	1995 p/	October	November	Year to date		
Australia	650	76	79	609		
Belgium	103,000	7,290	6,160	118,000		
Brazil	1,580	8		204		
Canada	7,590	113	330	2,580		
Chile	62,900	10,000	5,250	61,100		
China		2,450	1,410	10,700		
France				56		
Germany	7,700	473		5,050		
India		199		586		
Italy	1,370	1,760	505	3,730		
Japan	54,900	3,560	5,500	47,500		
Korea, Republic of	2		102	102		
Mexico	40,400	5,850	4,100	53,100		
Netherlands	112,000	6,060	5,960	58,900		
Singapore	1					
Spain	121		199	199		
Sweden	6,300	1,020	830	4,530		
Switzerland	324					
Taiwan	6					
United Kingdom	47,400	2,220	2,920	58,700		
Venezuela	5					
Total	446,000	41,100	33,400	426,000		

p/ Preliminary.

Source: Bureau of the Census.

 ${\bf TABLE~5}$ U.S. EXPORTS OF FERROMOLYBDENUM, BY COUNTRY 1/

(Hundred kilograms, contained molybdenum)

Country		1996				
	1995 p/	October	November	Year to date 2/		
Australia	8					
Canada	2,140	247	161	2,110		
China	2					
Egypt	9					
Japan	1,050	13		1,150		
Korea, Republic of	21			19		
Malaysia	223			372		
Mexico	2,010	51	50	1,050		
Netherlands	737					
Singapore		85	32	539		
Spain	234			12		
Taiwan	485					
Venezuela	27			8		
Total	6,920	396	243	5,270		

p/ Preliminary.

Source: Bureau of the Census.

^{1/} Data are rounded to three significant digits; may not add to totals shown.

^{1/} Data are rounded to three significant digits; may not add to totals shown.

^{2/} May include revisions to previous months' data.

 ${\bf TABLE~6} \\ {\bf U.S.~IMPORTS~FOR~CONSUMPTION~OF~MOLYBDENUM~PRODUCTS~1/}$

(Hundred kilograms unless otherwise specified)

		1995			1996		
		January-December	er	January-November			
	Gross	Contained	Value	Gross	Contained	Value	
Material	weight	molybdenum	(thousands)	weight	molybdenum	(thousands)	
Ore and concentrates roasted	74,300	47,800	\$73,400	74,900	50,800	\$38,000	
Ore and concentrates other	15,000	7,930	8,040	351	210	169	
Molybdenum chemicals:							
Oxides and hydroxides	9,180	NA	11,400	10,000	NA	7,490	
Molybdates of ammonium	3,450	1,860	2,880	5,920	3,150	4,860	
Molybdates (all others)	540	420	285	825	364	506	
Molybdenum orange	6,740	NA	2,270	17,100	NA	5,300	
Mixtures of inorganic							
compounds	6	5	130			-	
Ferromolybdenum	65,500	41,900	74,600	74,900	47,200	52,600	
Molybdenum powders	1,950	1,460	5,590	1,130	995	3,060	
Molybdenum unwrought	1,310	1,020	3,560	837	770	2,190	
Molybdenum waste and scrap	4,530	4,300	6,310	6,840	6,320	9,570	
Molybdenum wrought						-	
Molybdenum wire		NA	277	19	NA	300	
Molybdenum other		NA	993	35	NA	964	
Total	183,000	107,000	190,000	193,000	110,000	125,000	

NA Not available.

 $^{1/\,\}textsc{Data}$ are rounded to three significant digits; may not add to totals shown.